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Gender And Ethnic Biases In Personality Disorder Diagnostic Criteria

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Gender and Ethnic Biases in Personality Disorder Diagnostic Criteria

BY

Christopher Lootens

THESIS

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Abstract

The present study examined bias within the diagnostic criteria for personality disorders, a category for diagnosis in the Diagnostic and Statistical Manual of Mental Disorders published by the American Psychiatric Association. Specifically, gender biases, ethnic biases, and interaction effects between the two were examined for the three Cluster C PD diagnoses. One of the more heated controversies concerning the DSM-IV involves the diagnosis of PD's, especially with regard to the notion of diagnostic bias. For the present study, 60 female and 60 male participants were recruited from the introductory psychology subject pool and given course credit for their participation. Participants completed a demographic questionnaire then viewed a PowerPoint presentation displaying Cluster C PD criteria. Participants were randomly placed into one of four ethnic conditions varying according to the ethnic background of the presented stimulus (Asian, African American, White, or Latino). Each PD criterion was presented twice, once for a male and once for a female within each ethnic condition. Participants rated the degree to which they believed the criterion was characteristic of the depicted individual using a Likert scale on the computer. Results indicted the existence of gender bias within the Cluster C PD diagnoses. Females were more likely to be characterized as possessing traits of both Avoidant and Dependent PD's, which is consistent with what prior research has found. Very scarce research exists on the topic of ethnic bias with respect to personality disorders, and no overall ethnic biases were found to exist within the Cluster C diagnostic criteria. However, a significant interaction between gender and ethnicity was found for Dependent Personality Disorder. These results, as well as the clinical implications and suggestions for future research are discussed.

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Gender and Ethnic Bias in the Diagnostic Criteria for Personality Disorders

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The need for a classification of mental disorders has been apparent throughout the history of medicine; however, there has been disagreement about how to organize such a system. In the United States, the desire for a classification system related largely to the need for statistical information about mental disorders (APA, 2000). By 1880, seven categories of mental illness had emerged, and in 1952 the American Psychiatric Association Committee on Nomenclature and Statistics had developed a variant of the International Statistical Classification of Diseases (ICD-6) called the Diagnostic and Statistical Manual: Mental Disorders (otherwise known as DSM-I) (APA, 2000).

Since this time, the DSM has evolved through several editions. The third editions of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III and DSM-III-R) brought forth major advances in the diagnosis of mental disorders and greatly facilitated empirical research (APA, 2000). The goals of developing and implementing the most current version of the manual (DSM-IV-TR) were many, including ensuring that all information was up-to-date and reflecting new empirical information available since the DSM-IV, which was published in 1994 (APA, 2000).

The development of a uniform classification system has presented the challenge of making this system both reliable and valid. Historically, psychiatric research has generally been hindered by a lack of agreement between two raters concerning the presence or absence of a psychiatric diagnosis (Turner & Hersen, 1997). This creates an obvious problem with reliability, and two primary reasons have been identified to account for this. The first problem involves the lack of standardization of questions which are asked of clients during clinical interviews to arrive at a diagnosis. The second, related to the focus of this study, targets the diagnostic criteria, suggesting that poorly

defined criteria play a substantial role in the concern over reliability (Turner & Hersen, 1997, Widiger, 1998). The issue of reliability has been addressed in past revisions of the DSM, and the introduction of operationalized, specified, empirically-derived, and standardized criteria for diagnosis, along with the construction of standardized structured diagnostic interviews has greatly improved the reliability of this system over time (Turner & Hersen, 1997).

The concept of validity, however, is more complicated to address. Although reliability can be enhanced by training clinicians and refining individual criteria, there is no easy solution to the problem of improving the validity of our current classification system. Validity, the measure of the extent to which the DSM diagnoses accurately characterize mental disorders, is challenging to measure. This presents a problem for psychiatric research. In fact, the lack of diagnostic validity is considered to be among the more serious issues which mental health professionals face (Turner & Hersen, 1997). Nevertheless, as methods of classifying psychological disorders continue to be refined, the issue of forming both a reliable and valid system to accomplish such remains an important and controversial subject.

The focus of the present study concerns the diagnosis of one category in particular: personality disorders. Within this category, the specific issue of bias will be addressed. This is an issue which is reflected within the diagnostic criteria, and thereby can influence the validity of this category and the diagnostic taxonomy as a whole.

Diagnosis of Personality Disorders

A unique feature of the current classification method, the DSM-IV, is the utilization of a multiaxial diagnostic system, which "facilitates comprehensive and

systematic evaluation with attention to the various mental disorders and general medical conditions, psychosocial and environmental problems, and level of functioning that might be overlooked if the focus were on assessing a single presenting problem" (APA, 2000, p. 27). This system, consisting of 5 axes, promotes the application of the biopsychosocial model in clinical, educational, and research settings. When constructing a diagnosis, Axes I and II are those upon which psychological disorders are placed. Axis I is used for reporting the various disorders or conditions in the DSM except for the Personality Disorders and Mental Retardation (APA, 2000), which are placed upon Axis II. The distinction between the two lies mainly in the belief that Axis II disorders are more chronic, enduring patterns of behavior which inhibit normal functioning on a far more pervasive level than the "acute clinical syndromes" which characterize Axis I disorders.

The DSM defines a Personality Disorder as, "an enduring pattern of inner experience and behavior that deviates markedly from the expectations of the individual's culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment" (APA, 2000, p. 685). The DSM-IV includes ten personality disorder diagnoses: paranoid, schizoid, schizotypal, antisocial, borderline, histrionic, narcissistic, avoidant, dependent, and obsessive-compulsive PDs. This particular group of disorders is somewhat difficult to diagnose, given that the clinician must evaluate an individual's long-term patterns of functioning. Moreover, the diagnosis must be distinguished from personality *traits* which do not reach the threshold for diagnosis. Additionally, judgments about personality functioning must take into account the individual's ethnic, cultural, and social background (APA, 2000).

The DSM-IV divides the PDs into three groups or "clusters" based on similarity

of symptoms. Cluster A is termed the "odd or eccentric" cluster including paranoid, schizoid, and schizotypal PDs. The Cluster B disorders (i.e., antisocial, borderline, histrionic, and narcissistic) encompass PDs which are "dramatic, emotional and erratic." Finally, Cluster C contains the "anxious or fearful" PDs: avoidant, dependent, and obsessive-compulsive PDs. The creation of these three clusters suggests an alternative to viewing each of the PDs as single entities which are distinct and mutually exclusive (Widiger & Costa, 1994).

However, criticism of these clusters has arisen due to the fact that they are not empirically based. Several studies, typically conducted with the use of factor analysis, have been performed in order to empirically justify the use of such a system (Widiger & Costa, 1994). These studies, however, have led to mixed results. In addition, some claim that the inadequacy of a three-cluster arrangement is evident conceptually (Widiger & Costa, 1994). For instance, although the terms "dramatic" and "emotional" express the major concept of the Borderline and Histrionic PDs, Narcissistic and Antisocial PDs are not as well-described by these labels. There is without a doubt more to Antisocial PD than being dramatic or overly emotional. Further, with respect to Cluster A, individuals with Schizoid PD would be better described as anhedonic rather than "odd or eccentric" (Widiger & Costa, 1994). Finally, regarding Cluster C, although Avoidant and Dependent PDs appear to share anxiety and fear as the major symptomology, an individual diagnosed with Obsessive-Compulsive PD is typically concerned with orderliness and perfection (Turner & Hersen, 1997).

Controversial Issues

Aside from the debate over the utility of the PD "clusters", one of the more heated

controversies surrounding this type of psychopathology concerns the implementation of a dimensional approach to diagnosis. Currently, the diagnostic approach in the DSM-IV represents a categorical perspective that PDs are qualitatively distinct clinical syndromes (APA, 2000). There are, of course, advantages to utilizing a categorical approach, the most obvious of which is the convenience of this method. Another advantage involves the facilitation of communication between mental health professionals. For instance, it is more convenient for one clinician to explain to another that he or she is seeing a patient with "Narcissistic Personality Disorder" rather than a patient who has a grandiose sense of self, seeks constant admiration, and aspires to associate with individuals of higher status. Despite this convenience, many researchers (e.g., Widiger & Costa, 1994) believe that the PDs represent extremes on one or more personality dimensions and that, consequently, the diagnosis of personality disorders should be replaced or at least supplemented by a dimensional model (Barlow & Durand, 1999). Prior research has attempted to identify the fundamental dimensions which underlie personality functioning, and there have been a variety of structural models to consider, such as the interpersonal circumplex and the Five Factor Model (Widiger & Costa, 1994). The crucial question has become which model to choose, and this decision warrants much more specific and detailed scientific inquiry.

As discussed previously, the extent to which a classification system is both reliable and valid relates very much to its utility and overall efficacy. Unfortunately, the problems with reliability facing the DSM-IV are especially apparent when examining the personality disorders. Since their introduction in the DSM-III, the personality disorders have had poorer reliability coefficients than most Axis I disorders. For instance, in one

study (Mellsop, Varghese, Joshua, & Hicks, 1982), three psychiatrists each evaluated and diagnosed 24 inpatients determined to have an Axis II PD. Kappa coefficients were obtained to assess the inter-rater reliability of the DSM-III diagnoses. Overall, the reliability coefficients of the PD diagnoses were low, with the antisocial diagnosis showing the highest reliability ($k = .49$), and schizoid the lowest ($k = .01$). These results support the assertion that the reliability of the PD diagnoses is questionable, and an examination of the diagnostic criteria within the PD category may reveal suggestions for improvement.

Yet another area of criticism surrounding the PD diagnoses regards the issue of comorbidity among PDs. Comorbidity is a term used "to describe the co-occurrence in the same person of two or more diagnostically distinct disorders" (Turner & Hersen, 1997, p. 510). Comorbidity of personality disorder diagnoses with each other and with Axis I disorders is an issue of concern, as it not surprisingly raises the question of diagnostic validity and has the potential to hamper research being conducted on psychopathology. Examples of such comorbidity include the Borderline PD, which is frequently diagnosed along with other personality disorders and, quite often, with Axis I affective disorders (Andrulonis & Vogel, 1984). In addition, clients diagnosed with phobias have been shown to be far more likely than other clients to receive a Cluster C PD diagnosis (Reich, Noyes, and Troughton, 1987). In response to this frequent occurrence, authors of the DSM have simply suggested denoting all applicable diagnoses during a multiaxial assessment, although this solution would clearly not help researchers, or clinicians searching for differential treatment approaches (Turner & Hersen, 1997).

This issue of comorbidity should not be confused with the issue of "overlap"

between diagnostic criteria. Overlap also should not occur according to the principle that the diagnostic criteria for different psychological disorders are mutually exclusive and distinct. In fact, however, symptom overlap *does* occur in the diagnosis of certain PDs. For instance, Schizoid and Schizotypal PDs share the criterion "lacks close friends or confidants other than first-degree relatives" (APA, 2000). Moreover, it is often challenging for a clinician to distinguish between Axis I Social Anxiety Disorder and Axis II Avoidant PD as the conceptual features and diagnostic criteria of these disorders are quite similar.

When conducting psychiatric research on a single disorder or group of disorders, such as the PDs, the issue of prevalence rates is often called into question. Prevalence rates closely factor into the validity of a particular diagnosis (or diagnostic category), and thus conclusions regarding differential sex prevalence rates should be based upon empirical research. Currently, the DSM-IV-TR states that, "the Dependent PD is among the most frequently reported PDs encountered in mental health clinics" (APA, 2000, p. 723); it claims Schizoid PD as the rarest, stating that, "Schizoid PD is uncommon in clinical settings," (APA, 2000, p. 696). Unfortunately, aside from the little information on prevalence rates which the DSM provides, the existing research on prevalence rates of PDs is scarce at best (Corbitt & Widiger, 1995). The provision of demographic data is the exception rather than the norm in personality disorder research data. Furthermore, very little of the data which is provided has been based on large-scale, community-based epidemiological studies (Corbitt & Widiger, 1995). The DSM-III-R stated that the Dependent PD is "more frequently diagnosed in females," (APA, 1987, p. 354), and the Histrionic PD is diagnosed "*much* more frequently in females," (APA, 1987, p. 349). It

may be no coincidence that these qualifications were made only for the Dependent and Histrionic PDs, as the gender bias controversy has focused largely on these two disorders (Corbitt & Widiger, 1995). The research of Bornstein (1996) further supports the notion that Dependent PD is more common in females. However, the DSM-IV has suggested that there may not be such actual gender differences. It suggests that the differences are only apparent when unstructured (or "biased") clinical assessments are used. Although the two aforementioned disorders were found to be more prevalent in females, it is important to mention that six of the PD diagnoses have previously been considered to be more prevalent in males: schizoid, schizotypal, narcissistic, paranoid, antisocial, and obsessive-compulsive (Widiger, 1998). An answer to the controversy over the differential gender prevalence rates among the PDs may never come unless there is a way to determine the male-to-female ratios which *should* be obtained based on a theoretical model. Widiger and Spitzer (1991) concluded that, "in the absence of a comprehensive model of personality disorder pathology it is difficult to determine whether there should be an equal proportion of males and females receiving a PD diagnosis, or whether there is an imbalance in the current system" (p. 18).

A final and highly controversial issue surrounding the diagnosis of personality disorders (closely linked to prevalence rates) concerns the topic examined in the present study: the issue of bias. To clarify, the idea of "bias" in general should be defined. A bias is a prejudice that influences thinking and is likely to affect decision-making (Merriam-Webster's Collegiate Dictionary, 2003)." Although prior research has typically used the term "bias" to describe differential gender attributions, most of these studies are actually examining raters' preconceptions or prejudgments. To be consistent

with previous research, however, the term "bias" will be used for the purposes of this paper. Bias in the assessment and diagnosis of personality disorders can manifest itself in several forms: biased diagnostic constructs, biased application of diagnostic criteria, biased assessment instruments, and finally biased diagnostic criteria (Widiger, 1998). These types of bias and empirical evidence of such will be more closely examined in the following section.

Gender Bias and Personality Disorders

The idea of biased diagnostic constructs is a concern which has been raised for virtually every edition of the DSM (Widiger, 1998). In general, this particular criticism centers around the notion that certain PD diagnoses are inherently more likely to be assigned to persons of a certain gender. For instance, Sprock (2000) conducted a study in which she asked 120 undergraduate students in an introductory psychology course to generate three behavioral examples of the DSM-III-R and DSM-IV Histrionic PD criteria. The Histrionic PD diagnosis, characterized by excessive dramatic behavior and emotionality along with a strong desire for attention, is one that has often been examined in the gender bias research as some consider it to be biased against females (e.g., Kaplan, 1983). For this study, the behaviors to be listed were done either without regard to sex or according to sex role instructions (e.g., identify three feminine histrionic behaviors or three male histrionic behaviors). A national sample of 157 mental health professionals were then asked to rate the representativeness of the symptoms for the Histrionic PD criteria. Results indicated that the feminine behavioral examples of HPD were rated as somewhat better examples of the HPD criteria *and* as more representative of the histrionic construct overall (Sprock, 2000). Though the prototypicality ratings for

masculine, feminine, and non-sex-type behaviors were statistically significant, the differences were small in size. Additionally, although the sample size was moderate, each behavior was rated by only a subset of the participants, meaning the statistical analyses focused on group behavior. Thus, the individual differences observed in this study should be interpreted with caution (Sprock, 2000). Despite these limitations, this study serves to provide empirical evidence of the way in which one PD construct may be perceived as gender biased.

A second way in which gender bias may manifest itself is by the biased application of diagnostic criteria. Biased application of diagnostic criteria in clinical practice is the one form of sex bias which has the most empirical support (Widiger, 1998). This form of bias does not pinpoint a problem within the diagnostic criteria themselves (as is the focus in the present study), but rather a misuse of those criteria. Ford and Widiger (1989) conducted a study with 354 psychologists to assess whether or not the clinicians would demonstrate a gender bias in their diagnosis of DSM-III Antisocial or Histrionic PDs. Gender of the patient was the independent variable. The psychologists were randomly mailed either a case history or a list of behaviors which were either antisocial, histrionic, or balanced (meaning the list or case description reflected traits of both disorders) (Ford & Widiger, 1989). Results showed that women were disproportionately diagnosed as having Histrionic PD, even when the antisocial case was given. This study gives evidence for the fact that clinicians may be unwittingly gender biased in their application of diagnostic criteria based on the name of the disorder.

A third way in which gender bias may manifest itself with respect to PDs is in the use of biased assessment instruments. Little research has been done in this area,

although Lindsay and Widiger (1995) conducted a study which supported the notion that this form of bias does indeed exist. Their study investigated items from three widely-used personality inventories: the Millon Clinical Multiaxial Inventory – II (MCMI-II), the Minnesota Multiphasic Personality Inventory (MMPI), and the Personality Disorder Questionnaire – Revised (PDQ-R) (Lindsay & Widiger, 1995). The subjects ($N = 189$) completed the histrionic, dependent, antisocial, and narcissistic scales of these inventories along with the Bem Sex Role Inventory and the Symptom Checklist-90-R. These four scales were chosen due to the fact that at the time, previous research had indicated the existence of a potential sex bias particularly with regard to those PD diagnoses. Within those four scales, an item was considered potentially biased if it met two criteria: 1) the item appeared to fail to indicate personality dysfunction overall, or 2) the item appeared to refer to a primarily masculine or feminine trait (Lindsay & Widiger, 1995). For example, an item considered to be referring to a primarily masculine trait is: "I like to read mechanics magazines", which appeared on the MMPI. Overall, the results of this study indicated that several of the items found on these three popular personality assessment measures were better predictors of the gender of the respondent than of actual dysfunction. In total, 39 MCMI-II items, 30 MMPI items, and 7 PDQ-R items evidenced a gender bias (Lindsay & Widiger, 1995). These results have quite important implications regarding the issue of gender bias in the assessment and diagnosis of personality disorders.

Finally, a fourth form of gender bias with regard to PDs stems from the notion that the criteria themselves may be biased. This issue is the focus of the present study, and although there has been disparity in the findings, past research has suggested that

such a bias may certainly exist. This form of bias is perhaps the most problematic to identify and to address (Widiger, 1998). One major complication arises from our fundamental inability to distinguish whether or not the problem could be resolved simply by creating "gender-neutral" criteria. This is complicated by the knowledge that males and females may express similar underlying personality psychopathology with different maladaptive behaviors, thereby influencing which criteria they meet. The difference between this form of bias and assessment bias (discussed previously) is that assessment bias concerns differences in the clinician's interpretation and application of an item or criteria, and criterion bias involves a bias residing inherently within a criterion itself (Morey, Warner, and Boggs, 2002).

A study conducted by Morey, Warner, and Boggs (2002) examined possible gender bias in PD diagnostic criteria by considering a number of potential empirical indicators of bias: prevalence differences in a nonclinical sample, the implications of gender differences as perceived by nonprofessionals, the internal consistency of criteria as a function of gender, and the gender-normativeness of criteria (Morey, Warner, and Boggs, 2002). For their study, the researchers used 101 college student participants enrolled in an upper-level psychology course at a large southwestern university. Subjects completed a brief personality measure and two questionnaires consisting of a verbatim rendering of the 79 individual PD criteria. The personality measure was not used in the study, but the two questionnaires were. For the first, the participants rated on a Likert scale the extent to which the criteria described themselves. The second also involved a Likert rating scale, but this time the scale examined the differential implications of the descriptors for men and women. A "1" indicated that "a man with this characteristic

would have much more trouble functioning than a woman with this characteristic", and a "5" indicated the opposite. At the level of the individual disorders, results found that self-ratings differed significantly by gender for both Antisocial and Schizoid personality disorders; these were both found to be more prevalent among men. In terms of the differential gender implications for the criteria, only one single criterion (belonging to Histrionic PD), met the level required for statistical significance. In general, the results of this study did not suggest that the DSM-IV personality disorder criteria set was biased as a whole, either against men or women. However, some of the individual criteria did demonstrate prevalence differences, particularly those criteria for Antisocial and Schizoid PDs. This finding is quite relevant to the present study, as it provides evidence that the individual criteria themselves may reflect bias.

Given that all the above "forms" of bias have been empirically established to exist, the question becomes, "How does one establish a system which is free of bias?" One obvious solution would be to revise the criteria so as to close the gap in prevalence rates between men and women. However, this would be neither feasible nor desirable; it would simply distort the reality of PD prevalence in order to achieve an acceptable sociodemographic distribution of psychiatric diagnoses (Bornstein, 1996). Rather, Widiger (1998) suggests that the solution may be to construct and implement a taxonomy which minimizes false positive and false negative errors for men and women, in particular, false positive errors which contribute to the pathologizing of one gender relative to the other. For instance, previous work has established the diagnosis of Antisocial PD as more common in men, and Histrionic PD in women. Instead of revising these disorders' criteria so that the antisocial criteria are more feminine and the histrionic

more masculine, we should revise the criteria so that there will be fewer false positive errors in their application to men and women alike. This could potentially be accomplished by increasing the behavioral specificity of diagnostic criteria to reduce their ambiguity, misinterpretation, and misapplication (Widiger, 1998).

Ethnic Bias and Personality Disorders

A considerable amount of research has been conducted regarding gender bias and the diagnosis of personality disorders. However, the existence of such bias is still debated by professionals in the field, as it has been quite challenging to actually prove. This difficulty in proving such bias may be explained by the fact that gender is a variable which achieves its primary significance in its interaction with other variables (Becker & Lamb, 1994). One such example of another variable is that of ethnicity. Very few studies have been conducted examining the existence of ethnic bias with respect to PDs, and almost no studies to date have assessed the interaction between race and gender bias in this regard. The lack of empirical inquiry in this area is surprising given that the DSM does caution therapists to take an individual's cultural identity into account when applying a diagnosis.

One such study, conducted by Iwamasa et al. (2000), assessed the extent to which ethnic bias may exist. Participants included 193 undergraduate students. With no prior knowledge of psychological disorders, participants were asked to sort cards containing DSM-III-R PD criteria (referred to as "personality characteristics which people sometime have"). The participant sorted the cards three separate times: by ethnicity, by sex, and by self. They were asked to place the index card into the box which described an individual most likely to have that "personality characteristic". The ethnicity sort included choices

of "African American," "Asian American," "European American," "Latino," and "Native American." The gender sort involved a scale which included "most characteristic of men" on one end and "most characteristic of women" on the other. Finally, the self-sort included two boxes labeled "describes me" and "does not describe me." Post hoc chi-squares were conducted for each PD, resulting in ten different analyses. Results indicated that criteria for Antisocial and Paranoid PDs were disproportionately assigned to African Americans, criteria for Schizoid PDs were more often applied to Asian Americans, and criteria for Schizotypal PDs were applied to Native Americans. Antisocial and schizoid diagnoses were more frequently applied to males, and avoidant, borderline, dependent, and paranoid diagnoses were more frequently applied to females. It should be noted that this study was conducted with a "forced choice" format. That is, participants did not have the option of assigning a criterion to *no* ethnic or gender group, or to more than one group. With further respect to the design of the study, it would have been possible that a random distribution of the criteria would have occurred. Despite these limitations, the fact remains that ethnic and gender criterion biases were found.

In another study, Strakowski et al. (1995) studied the effect of race on diagnosis and disposition in a psychiatric emergency services setting. Patients ($N = 490$) were randomly selected from a list of medical records of patients who had visited the service during one calendar year. The patients' evaluations consisted of three components: an initial interview by a psychiatric nurse for chief complaint; an interview by a social worker examining past psychiatric, medical, family, and social history; and finally, a review of the case by a psychiatrist who may or may not have interviewed the patient to obtain medical information. The therapist and psychiatrist then reached an agreement on

a DSM-III-R diagnosis. The diagnoses included for analysis in this study included: the spectrum of schizophrenic disorders, substance use disorders, adjustment disorders, affective disorders, organic mental disorders, personality disorders, and "other psychiatric diagnoses". Results showed that principal diagnoses were not equally distributed by race or sex (Strakowski et al., 1995). Most relevant to the present study were the results regarding race and the diagnosis of personality disorders. Of the 18 individuals diagnosed with a PD, 17 were White and 1 was African American. The authors suggested that these findings may have been due to the fact that "some Black patients with PDs may have been diagnosed with schizophrenia instead, or alternatively that White patients may have been misdiagnosed with personality disorders" (p. 105). This discrepancy suggests that further research should be conducted to determine whether these differences may be due to actual prevalence rates or possible ethnic bias on the part of the clinicians.

Adding to these findings was a study conducted by Sharma and Bentson (2003), who sought to examine any gender biases, ethnic biases, or interaction effects between the two within the PD criteria. Undergraduate students ($N = 85$) were randomly placed into one of four conditions which varied according to ethnicity and gender of the stimulus. With the use of a PowerPoint presentation, participants viewed 79 individual PD criteria, one at a time for eight seconds each. After seeing a criterion, individuals were shown an image of either a White male, a White female, an Asian male, or an Asian female. The participants then rated the degree to which they believed the criterion applied to the individual shown. Results found that White individuals were rated as more likely to show traits of Schizoid, Borderline, and Antisocial PDs. Asians were rated as

more likely to show characteristics of Obsessive-Compulsive PD. Schizotypal, Paranoid, Histrionic, and Narcissistic PD criteria were most closely associated with White female and Asian male stimuli. Although these findings are significant, the authors noted the need for further analyses regarding other ethnic backgrounds, for instance African American and/or Latino groups.

Sams (2003) and Frantz (2004) expanded upon the results of the previous study. These two studies used word cues as opposed to images and added two ethnic groups to the design: African Americans and Latinos. In the Sams study, participants were 97 undergraduates, the majority of whom were female. Diagnostic criteria included under section A of the Cluster B PDs were included in the study. Consistent with previous findings with regards to gender differences, males were rated as having more antisocial traits, and females as more likely to display histrionic traits (Sams, 2003). Furthermore, White females were seen as more likely to possess traits characteristic of Borderline PD than any other group as well. As an ethnic group, Whites were seen as more likely to possess characteristics of Narcissistic PD than African Americans or Asians. Finally, both Asian males and Asian females were rated the least likely to have any PD traits. Despite these significant findings, the author suggested that statistical analyses concerning the interaction of gender and ethnicity would significantly add to our understanding of criterion bias within the PDs.

Frantz (2004) performed a similar study with the goals of : 1) examining gender and ethnic biases within Cluster A PD criteria and 2) performing a re-analysis of the data which had been collected for Cluster B in order to assess for interaction effects. This study used 120 undergraduates. The methodology was identical to the Sams study, but

included diagnostic criteria under section A of the Cluster A PDs. Cluster A results showed that a gender bias may exist with respect to the Paranoid PD diagnosis, as females were more likely than males to be characterized with these traits. This is inconsistent with what previous research (e.g., Morey, Warner, & Boggs, 2002; Widiger, 1998) has found, and further research would be needed to determine reasons for this discrepancy. With regards to ethnic bias, Frantz found that Latinos, both male and female, had the highest mean ratings for Paranoid PD criteria compared with the other ethnic groups.

Frantz also examined interaction effects between gender and ethnicity for both Clusters A and B. An examination of Cluster A revealed a significant interaction between gender and ethnicity for Paranoid PD criteria. African American, White, and Latino females were significantly more likely to be characterized with Paranoid PD traits than were Asian males. Additionally, White females were more likely than White males to be viewed as having Paranoid PD traits, and Latino males were more likely than Asian females to be characterized with Paranoid PD traits. Finally, Asians, whether male or female, were given the lowest ratings for Paranoid PD criteria. Overall, females and Latino males were disproportionately characterized with paranoid traits.

Within Cluster B, interaction effects were not found to be significant for Antisocial or Narcissistic PDs. However, there were significant interactions between stimulus gender and ethnicity for Borderline and Histrionic PDs. Specifically, white females were more likely to be characterized with Borderline traits than were Asian males, White males, and African American males. Latino females were more likely to be characterized with Borderline PD traits than Asian males and African American males.

Overall, White and Latino females were given higher ratings than females of any other ethnic condition. White and Latino males were also seen as more likely to possess borderline traits than both Asian males and African American males. Asians, whether male or female, received the lowest ratings for all PDs in Cluster B. Examination of Histrionic PD ratings revealed that females across all ethnic conditions (i.e., Asian, African American, White, and Latino) were rated as more likely to be characterized with histrionic traits than were Asian males. The results of this study contribute significantly to our understanding of gender and ethnic bias within the PD criteria, especially with respect to interaction between these two variables. Further research would be needed to examine these issues within the third PD cluster.

Present Study

Although it is clear that the notion of diagnostic bias has fostered empirical interest, the research conducted up until now is far from conclusive. Research has provided evidence for both ethnic and gender biases, but very limited research exists on the interaction of the two. Additionally, previous studies have focused more on identifying the existence of bias within diagnostic constructs and clinicians themselves. Little research to date has examined bias at the level of the individual diagnostic criteria.

The present study aims to expand upon the previous research in this area (e.g., Frantz, 2004l; Sams, 2003; and Sharma & Bentson, 2003). Sams (2003) explored gender and ethnic biases pertaining to Cluster B, while Frantz (2004) expanded upon this work and explored the issue within Clusters A and B. The present study gathered data pertaining specifically to Cluster C and assessed any interaction effects therein.

The Sharma & Bentson study (2003) presented photographic stimuli to participants. The present study used word cues as opposed to photographs in an attempt to decrease response to images in the picture only. As in the Frantz and Sams studies, four conditions of ethnic groups were presented (i.e., Asian, African American, Latino, and White).

The current study was conducted to explore potential bias within the criteria of the third PD cluster, Cluster C. Study questions were as follows: 1) Would participants assign Cluster C criteria according to the gender of the stimulus? I hypothesized that females would be shown as more likely to meet criteria for dependent personality disorder (Bornstein, 1996) and avoidant personality disorder (Iwamasa et al, 2000), whereas males would more likely be assigned the criteria for obsessive-compulsive personality disorder (Widiger, 1998). 2) Would participants assign Cluster C criteria differently based on the ethnicity of the stimulus? Since no previous research has examined ethnic bias pertaining specifically to Cluster C, I had no defined hypotheses. This area of the study was more exploratory in nature. 3) Would interaction effects be noted between the participants' ratings based on gender and ethnicity? Again, given a lack of previous empirical evidence, I had no specific hypotheses.

Method

Participants

Consistent with previous studies concerning Clusters A and B (i.e., Frantz, 2004, Sams, 2003), 120 participants were recruited for the present study examining Cluster C criteria. The students were recruited from the undergraduate psychology subject pool at a regional Midwestern university and received course credit for their participation.

An equal number of males and females ($N = 60$ each) participated in the study. The majority of the participants were Caucasian ($N = 99$; 82.5%). Other participants were African American ($N = 14$; 11.7%), Latino ($N = 2$; 1.7%), Asian ($N = 4$; 3.3%), and African (N = 1; .8%). Participant ages ranged from 18 – 25 ($M = 19.04$). Regarding class standing, 86 were freshmen (71.7%), 24 were sophomores (20%), 5 were juniors (4.2%), and 5 were seniors (4.2%).

Diagnostic Criteria Presentation

A procedure identical to that of both the Sams (2003) and Frantz (2004) studies was used in the present study. The Cluster C PD criteria were extracted from the DSM-IV-TR (APA, 2000). Criteria listed under Section A of each Cluster C diagnosis were used (see Appendix A for examples). Exclusionary criteria (e.g., "does not occur exclusively during the course of...") were not included for this study. Cluster C consists of 23 diagnostic criteria in total.

A PowerPoint presentation was used to present the Cluster C criteria. The participants were randomly placed into one of four ethnic group conditions: Asian, Latino, African American, or White. Within the ethnic condition, each Cluster C diagnostic criterion was presented twice, once for the male stimulus and once for the female stimulus. The specific diagnosis to which the individual criterion belongs was not revealed. All 46 criteria were presented randomly.

During the PowerPoint presentation, each criterion was presented for 8 seconds. The criterion was followed by a word cue stimulus indicating a certain gender and ethnicity (e.g., "Latino female"). Participants then used a Likert scale to rate the degree to which they believed the criterion applied to the word cue stimulus. Participants had as

much time as needed to complete the ratings. Ratings ranged from "1" to "5", with "1" meaning "not at all likely to have that characteristic" and "5" meaning "very likely to have that characteristic".

Procedure

Participants were recruited from the introductory psychology subject pool. Upon arrival, participants received an index card with a number on it and chose a computer. The participant entered the number into the computer, as each number was assigned to an ethnic condition. All participants signed an informed consent before being allowed to begin the study (see Appendix B). Participants then completed a brief demographic survey asking them to identify their age, gender, ethnicity, and current year in school. Following instruction, participants began the study and completed their ratings on the computer. Participants remained until everyone completed the study and were given a debriefing statement before leaving (see Appendix C).

Results

Data were analyzed using *t*-tests and ANOVAs. The analyses were based on a mixed factorial design for repeated measures. The study utilized a 2 (gender: male or female) by 4 (ethnicity: Asian, African American, Latino, or White) mixed factorial design. The independent variables varied both between subjects (i.e., ethnicity of the stimuli) and within subjects (i.e., gender of the stimuli). A significance level of $p < .05$ was set for all analyses that were conducted.

Means were calculated for each of the six dependent variables (e.g., Avoidant PD male, Avoidant PD female). The three Cluster C diagnoses do not have the same number of diagnostic criteria; therefore, mean calculation of the criteria ratings was necessary for

each disorder. The mean scores for each diagnosis were compared as opposed to the sums of the rating scores.

Gender Bias Results

To examine gender biases within the Cluster C diagnostic criteria, three paired sample *t*-tests were conducted on each PD mean rating score. The independent variable was stimulus gender (i.e., male vs. female). The dependent variables were the three PD criteria rating score means. The means for each disorder by gender are listed in Table 1.

Results show that female word cue stimuli ($M = 2.72$, $SD = .77$) were significantly more likely to be characterized as having Avoidant PD characteristics than male word cue stimuli ($M = 2.42$, $SD = .76$), $t(1, 119) = -4.67$, $p < .001$. Similar significant differences were also obtained for the Dependent PD criteria ratings. Again, female word cues ($M = 2.73$, $SD = .70$) were rated as significantly more likely to possess characteristics of Dependent PD than male word cues ($M = 2.35$, $SD = .55$), $t(1, 119) = -6.41$, $p < .001$. No significant gender differences were found for the mean ratings of Obsessive-Compulsive PD.

Ethnic Bias Results

In order to assess for Cluster C ethnic biases, a one-way ANOVA was conducted on the mean PD rating scores to assess for any differences in ratings scores across the four ethnic conditions. The independent variable was the ethnic condition of the stimulus (i.e., Asian, African American, White, or Latino). The dependent variables were the 3 PD rating means for Cluster C. The means for each disorder by ethnicity are listed in Table 1 as well.

Results show that no significant ethnic differences were found for the three

Cluster C diagnoses. However, mean ethnicity ratings for the Obsessive-Compulsive PD diagnosis approached significance, $F(3, 116) = 2.59$, $p = .056$. A Tukey's post-hoc test was performed to identify any specific differences between the four ethnic conditions. With respect to the Obsessive-Compulsive PD diagnosis, the most notable difference occurred between the ratings of Whites ($M = 2.77$, $SD = .53$) and African Americans ($M = 2.42$, $SD = .54$).

Interaction Effects between Gender and Ethnicity

In order to examine whether any interaction effects existed between gender and ethnicity for the Cluster C diagnoses, a 2-way split plot ANOVA design for repeated measures was used. The two independent variables were gender and ethnicity of the stimulus presented. Again, the gender variable consisted of two levels (male or female) and the ethnicity variable consisted of four levels (White, African American, Asian, or Latino). Table 1 provides a listing of the mean ratings across gender and ethnicity by disorder. Follow-up analyses including paired-samples *t*-tests and one-way ANOVAs were conducted for all significant interactions.

With respect to Dependent PD, the interaction between stimulus gender and ethnicity was found to be significant, $F(3, 116) = 5.64$, $p = .001$ (see Table 2). Therefore, follow-up tests were conducted. Paired-samples *t*-tests were conducted on the criteria ratings to assess for significant differences between genders within each ethnic condition. Results showed a significant difference between the Dependent PD criteria ratings for White males ($M = 2.40$, $SD = .59$) and White females ($M = 3.07$, $SD = .61$), $t(1, 29) = -4.66$, $p < .001$. A similar difference was found for Asian males ($M = 2.15$, $SD = .54$) and Asian females ($M = 2.69$, $SD = .76$), $t(1, 29) = -4.30$, $p < .001$, and also for Latino males

($M = 2.40$, $SD = .51$) and Latino females ($M = 2.60$, $SD = .69$), $t(1, 29) = 2.18$, $p < .05$. No significant differences were found between the Dependent PD criteria ratings for African American males and African American females.

Further, two one-way ANOVAs were conducted to examine any differences in ratings between ethnic conditions for both the female word cue stimuli and male word cue stimuli. The dependent variables were the mean ratings for females and males, and the independent variable was the ethnic condition of the stimulus. Results showed a significant difference between the ethnic conditions for average ratings of Dependent PD criteria when the stimulus was a female, $F(1, 3) = 3.62$, $p < .05$. A Tukey's post-hoc test was conducted to identify specific differences. These results are depicted in Figure 1. There was a significant difference between Dependent PD criteria ratings for African American females ($M = 2.56$, $SD = .64$) and White females ($M = 3.07$, $SD = .61$). In addition, the average criteria ratings for White females ($M = 3.07$, $SD = .61$) also significantly differed from those of Latino females ($M = 2.60$, $SD = .69$). The one-way ANOVA revealed no significant differences between different ethnic conditions for the average male Dependent PD ratings.

With respect to Avoidant PD, no significant interaction effects were found, $F(3, 116) = 2.47$, $p = .07$. There was, however, a main effect of gender for this diagnosis, $F(1, 116) = 22.62$, $p < .001$. There was not a main effect of ethnic condition for Avoidant PD, $F(3, 116) = 1.06$, $p = .37$.

Results for Obsessive-Compulsive PD also did not reveal a significant interaction between gender and ethnicity, $F(3, 116) = 1.80$, $p > .05$. There was not a main effect of gender, $F(1, 116) = 1.80$, $p = .15$, or ethnic condition, $F(3, 116) = 2.59$, $p = .06$, for

Obsessive-Compulsive PD.

Participant Demographic Differences

Final analyses were conducted to examine whether participant demographics, specifically participant gender and age, affected their ratings for Cluster C PD symptoms. Due to the lack of variability in participants' ethnicity and year in school, these analyses were not conducted. Participant gender was analyzed using three independent samples *t*-tests. Results revealed no significant differences between male and female participant ratings for Avoidant PD, $t(1, 118) = 1.25$, $p = .21$, Dependent PD, $t(1, 118) = 1.34$, $p = .18$, or Obsessive-Compulsive PD, $t(1, 118) = 1.15$, $p = .25$. Participant age was analyzed using three Pearson's *r* correlations. Results found no significant correlations between participant age and average criterion ratings for Avoidant PD ($r = -.05$), Dependent PD ($r = .05$), or Obsessive-Compulsive PD ($r = .07$).

Discussion

The aim of the current study was to examine whether Cluster C Personality Disorders contain gender and ethnic biases. The following research questions were formulated in order to assess whether such bias may exist: 1) Would participants assign ratings differently based on the gender of the presented word cue stimulus?, 2) Would participants rate criteria differently based on the ethnicity of the presented word cue stimulus?, and 3) Would there be any interaction effects between the participants' ratings based on gender and ethnicity?

Gender Bias

Prior research (e.g., Sprock, 2000, Widiger, 1998) has provided evidence that gender bias exists within the PD diagnostic category. Although research has examined

several ways in which this bias may manifest itself (i.e., biased constructs and assessment instruments), little attention has been paid to bias at the level of the diagnostic criteria. The present study found that gender bias may exist within the Cluster C PD criteria. Specifically, female word cue stimuli were rated as more likely than male word cue stimuli to possess characteristics of both Avoidant and Dependent PDs. The results for these two diagnoses reflect the predictions set forth in the hypotheses for the study and are consistent with what prior research has found. Previous studies have provided support for gender bias in Avoidant PD (e.g., Iwamasa et al, 2000) and Dependent PD (e.g., Bornstein, 1996). The diagnostic criteria for Obsessive-Compulsive PD, however, were not differentially attributed by gender, as was expected due to similar findings in previous research (e.g., Widiger, 1998). Other studies, however, have not found bias with respect to this diagnosis (e.g., Sprock, Blashfield, and Smith, 1988).

One explanation for the findings regarding Avoidant and Dependent PD relates to the notion that the diagnostic criteria may in fact be gender-weighted. That is to say, it is possible that the diagnostic criteria have been formed in such a way that women are inherently more likely to meet criteria for the diagnosis of Avoidant or Dependent PDs. Many researchers (e.g., Bornstein, 1996, Widiger, 1998) have recognized the likelihood that males are as dependent as females, but that males may express dependency differently. They further cite the possibility that the Dependent PD criteria focus on the behaviors related to female dependency and actually ignore those conveying male-related dependency, possibly because those developing the DSM criteria have typically been males.

A second explanation for these findings concerns the impact of social role expectations pertaining to gender on participant ratings. In a similar previous study (Iwamasa et al, 2000), participants assigned criteria based on both gender and ethnicity, but were specifically told not to take into account social stereotypes. This was not the case in the present study, and therefore ideas concerning sex-typed role expectations may have factored into participant ratings. The cultural perception of females is that they are more sensitive, submissive, and emotional than males, both in general and in terms of relationships with others. It follows that females may be considered to be somewhat more dependent than males overall and thereby more likely to possess traits of Dependent PD. Personality disorders are considered to be extremes of "normal" personality traits, and it may be that the "extreme" of normal feminine passivity would be considered Dependent Personality Disorder.

The same notion applies to the results found for the Avoidant PD diagnosis. An underlying factor in the diagnostic criteria for this disorder concerns interpersonal sensitivity, especially to criticism and rejection. It is in essence this sensitivity which distinguishes the Avoidant PD from the Cluster A Schizoid diagnosis. Social stereotypes and gender roles typically define females as more sensitive than males, so it may be that an "extreme" of this sensitivity and related avoidance has been perceived to be more common in females.

Prior studies have found mixed results with respect to gender bias and Obsessive-Compulsive PD, with some research acknowledging a potential bias (e.g., Widiger, 1998) and some arguing against it (e.g., Sprock, Blashfield, and Smith, 1988). Typically, alleged bias for this diagnosis has been directed towards males. The present study did not

reveal a gender bias in the diagnostic criteria for Obsessive-Compulsive PD. One reason for this may be that it is only certain criteria which are more gender-weighted. For instance, the criterion "is excessively devoted to work and productivity to the exclusion of leisure activities and friendships (not accounted for by obvious economic necessity)" is one that may certainly be seen as more applicable to males. The ratings for the different criteria in this study were averaged for each disorder, so if it is indeed true that some Obsessive-Compulsive PD criteria are more biased than others, their significance may have been diminished by this procedure.

Despite the fact that females were rated as more likely to show characteristics of Avoidant and Dependent PDs, these findings should be interpreted with caution. It may be that females do indeed possess such traits more so than males and that true prevalence differences actually exist. If this is indeed true, the validity of the notion of diagnostic bias would be weakened. It may also be that both are true. Females may actually possess some specific PD traits more so than males, and vice versa, and these true prevalence differences have led to the development of social stereotypes which foster bias both within the diagnostic criteria and the practice of clinical psychology.

Ethnic Bias

Very little empirical attention has been paid to the examination of ethnic bias in the personality disorders. The present study aimed to incorporate exploration of this critical area; however, results did not support the existence of ethnic bias overall within the diagnostic criteria for Cluster C personality disorders. Given the lack of prior work in this area, no particular hypotheses were defined for this study. Some previous researchers who have found such a bias within other PD clusters (e.g., Iwamasa et al,

2000) have cited the possibility that such results were obtained because individuals may be paying more attention to negative social stereotypes regarding ethnicity. For example, in their 2000 study, Iwamasa et al found that Antisocial PD criteria were disproportionately assigned to African Americans. They suggested this might be the result of negative stereotypes which exist with regard to the typical behavior of African Americans. As another example, the study also found that participants labeled Asians as significantly more likely to meet the criteria for Schizoid PD, again possibly because of negative stereotypes. These prior results also highlight the possibility that such biases, if they do indeed exist, are more prevalent in other PD clusters.

Interaction Effects

Although a significant amount of research has been conducted in the area of gender bias and PDs, very few studies to date have examined the interaction of gender with other variables with respect to diagnostic bias. The present study examined both gender and ethnic biases residing within the Cluster C PDs, along with any interaction effects between the two. Results of the present study found significant interaction effects between gender and ethnicity for Dependent PD, although not for Avoidant or Obsessive-Compulsive PDs.

Upon examination of the different ethnic conditions, significant differences were found between PD ratings assigned to male and female word cue stimuli in the White, Asian, and Latino ethnic conditions. Within each of these three ethnic conditions, female word cue stimuli were rated as more likely than male word cue stimuli to possess the Dependent PD characteristics. This could have resulted from the perception that a female's level of dependency is somehow associated with her ethnicity. In other words,

females may be seen as more dependent than males overall; however, within the female group, some may be more dependent than others and this may vary by ethnicity. Furthermore, some dependent behaviors may be more stereotypical of females belonging to one particular ethnicity as compared to others.

Significant differences were also obtained between different ethnic groups for the female stimuli. Specifically, White female stimuli were rated the most likely to possess characteristics of Dependent PD overall and as significantly more likely to show Dependent PD traits than both African American female and Latino female stimuli. Similar to the results suggesting the existence of gender bias, this too might be explained by the group characteristics of those who have created the DSM criteria. As explained, these individuals have typically been males, and they have also typically been White. Therefore, it may be that females of different ethnicities truly possess similar levels of dependency, but that the current diagnostic criteria reflect those behaviors with which the creators of the DSM were more familiar because of their own Caucasian ethnicity.

Significant differences were not obtained between different ethnic groups for the male stimuli. This could have resulted because males of all ethnicities are not perceived to be as likely to possess dependent characteristics.

Implications of Present Study

Previous research has attempted to define the existence of bias in the personality disorders in many ways. While some (e.g., Sprock, 2000) point to biased diagnostic constructs, others lend favor to the notion of biased assessment tools (e.g., Lindsay & Widiger, 1995) or bias on the part of the clinician (e.g., Widiger & Ford, 1989, Widiger, 1998). It may very well be that all of these forms of bias exist and even interact with

each other in complex ways. The concept of bias at the level of the diagnostic criteria has been proposed by some, but has not yet been thoroughly examined empirically. If indeed criterion bias does exist on some level, which this study has shown to be the case, it must be separated from other forms of bias and addressed appropriately.

The DSM-IV remains the primary reference used to diagnose psychological disorders. This may help to explain why the issue of bias has remained such a heated controversy (Widiger, 1998). Currently, each diagnosis provides one criteria set for use with both men and women of all ethnicities based on the assumption that each individual will express psychopathology in a similar manner. However, this may not be the case. Although the present study did not provide support for the existence of ethnic biases overall within Cluster C, gender biases were found for both Avoidant and Dependent PDs. The possibility remains that this is solely due to true prevalence differences; however, it is questionable that this is the case until there is evidence that the diagnostic criteria are representative of behaviors embodied by both genders and all ethnicities. For instance, results of the present study found that White female word stimuli were rated as significantly more likely to possess traits of Dependent PD. However, it is hard to tell whether this is actually true, or whether the diagnostic criteria take into account the dependent behaviors of White females more so than those of females of other ethnicities or even of males for that matter. If indeed the diagnostic criteria for personality disorders have been shaped by the views and experiences of those responsible for creating the DSM, it would be quite difficult to assess the existence of true psychopathology and thereby gather information on true prevalence rates.

In addition to these theoretical implications of bias, concerns pertaining to clinical practice are raised as well. The existence of bias on the part of the clinician remains a controversial issue. However, there must be valid diagnostic criteria for use when the clinician is applying the criteria correctly. Widiger (1998) argues for the need to increase the behavior specificity of the diagnostic criteria so as to reduce their ambiguity and misapplication. This would likely reduce the incidence of bias, if it does exist, because the criteria for diagnosis are presently quite vague and open to interpretation. Because of this, the criteria are more susceptible to bias on the part of the clinician. It might also be helpful if the authors of the DSM would more readily recognize the need for clinician awareness of both gender and cultural issues which play a role in an individual's presenting symptomology.

Limitations of Present Study and Implications for Future Research

The aim of the present study was to expand upon the work which has been conducted by others in this area. For instance, Sams (2003) examined such biases within the Cluster B criteria, but did not examine interaction effects between the variables of gender and ethnicity as the present study did. Additionally, Sharma and Bentson (2003) utilized photographs as opposed to word cue stimuli. The present study used word cue stimuli in an attempt to improve upon this methodology. Despite these advantages, the study involves several limitations, especially with respect to the sample used.

Participants were undergraduate introductory psychology students at a regional Midwestern university. The goals of this study were to examine biases in the diagnostic criteria for PDs. Such criteria are used only by professionals who have had training in psychopathology and the application of diagnostic criteria to individual cases. These

individuals further have typically earned a graduate-level degree. Although the participants' unfamiliarity with the PD criteria was an advantage for this particular rating task, the results would certainly have limited generalizability to a clinical population. Future research should consider using individuals such as practicing clinicians in this type of study, as the results would then be more meaningful to the population responsible for using the diagnostic criteria in clinical practice. It also may be helpful to compare these results with those of a clinician population to assess for bias on the part of the clinician as compared to a college sample.

With further respect to the population used, there was very limited variability in terms of participant demographics (i.e., age, ethnicity). Specifically, the results pertaining to the ethnic bias may have been altered had there been more variability in participant ethnicity. In similar future studies, it would be helpful to obtain more variability in participant ethnicity. Not only might this influence the ratings overall, but it may also be useful to assess whether the criterion ratings vary with the ethnicity of the rater and to explore the implications of such.

Additionally, the study was designed with the ethnic condition as a between-subjects variable. Each participant completed ratings viewing only one ethnicity. This was certainly more practical in terms of time and effort needed to complete the ratings. However, it may be more useful in the future for the ethnic condition to also be a within-subjects variable, if possible, as this may have influenced the results.

Furthermore, the use of verbatim diagnostic criteria, though useful for gauging actual criterion bias, may have presented a problem in terms of the participants' potential failure to understand the meaning of some words. For instance, the word "inept" is used

under criterion 6 for Avoidant PD and the word "scrupulous" is found under criterion 4 of Obsessive-Compulsive PD. It is possible that a failure to understand the vocabulary within a particular criterion affected that the rating associated with it.

Finally, this study took into account only those biases which pertain to Cluster C diagnostic criteria. Comparisons of these results with other PD clusters, for instance the work of Frantz (2004) and Sams (2003), may help to reveal overall gender and ethnic biases which exist within the PD criteria set as a whole.

Conclusion

Although much work has been conducted in the area of gender bias and the personality disorders, little research has focused on ethnic bias or the interaction of these two variables. The goal of the present study was to add to our understanding of bias within the diagnostic criteria for PDs by examining both of these types of bias and their relationship to one another.

The present study found gender bias to exist within the diagnostic criteria for personality disorders, especially concerning Avoidant and Dependent PDs. However, the question remains whether true prevalence differences actually exist, or whether the influence of bias on the diagnostic criteria has simply led to the belief that this is the case. The development of accurate, valid diagnostic criteria is necessary in order to assess true psychopathology and obtain actual prevalence rates.

The results of this study did not reveal the existence of ethnic bias overall, but did lend support to the notion that bias may become more apparent as gender interacts with some other variable (i.e., ethnicity). It is possible that this association between gender and ethnicity has shaped the views of those who have developed the DSM. Therefore,

this study highlights the necessity of critically evaluating the way in which psychological disorders are diagnosed in order to prevent misdiagnosis, and by extension of that, compromised treatment, as a result of bias within the diagnostic criteria.

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Table 1

Cluster C PD Means and SDs by Condition

	Condition									
	Asian		Af. Am.		White		Latino		Overall	
PD means	M	SD	M	SD	M	SD	M	SD	M	SD
Avoidant										
Male	2.56	.81	2.37	.79	2.40	.75	2.35	.72	2.42	.76
Female	2.76	.74	2.51	.70	2.90	.73	2.62	.84	2.72	.77
Overall	2.66	.73	2.44	.68	2.70	.57	2.49	.73	2.57	.68
Dependent										
Male	2.15	.54	2.44	.54	2.40	.59	2.40	.51	2.35	.55
Female	2.69	.76	2.56	.64	3.07	.61	2.60	.69	2.73	.70
Overall	2.42	.56	2.50	.55	2.73	.45	2.50	.56	2.54	.54
Obsessive-Compulsive										
Male	2.79	.83	2.35	.58	2.68	.61	2.49	.46	2.58	.65
Female	2.68	.72	2.48	.57	2.86	.55	2.65	.55	2.67	.61
Overall	2.73	.68	2.42	.54	2.77	.53	2.57	.44	2.62	.56

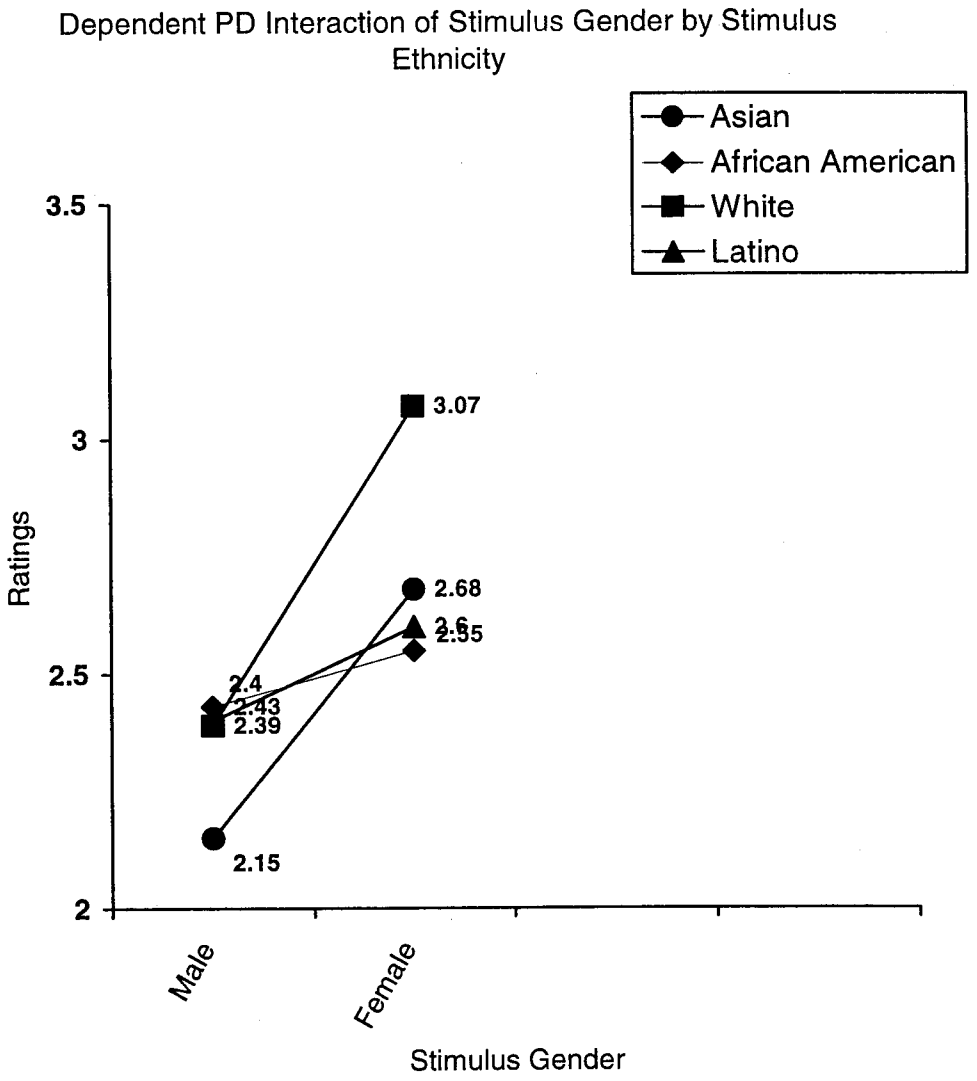
Table 2

Dependent PD Analysis of Variance Results for Gender and Ethnicity Variables

Source	df	SS	MS	F
		Between subjects		
Condition	3	3.33	1.11	1.96
Error 1	116	65.65	.57	
		Within subjects		
Gender	1	8.72	8.72	45.86*
Condition x Gender	3	3.22	1.07	5.64*
Error 2	116	22.06	.19	

*$p < .001$

Figure 1


Dependent PD Interaction of Stimulus Gender by Stimulus Ethnicity
Asian
African American
White
Latino
3.5
3
2.5
2
Ratings
3.07
2.68
2.6
2.55
2.4
2.43
2.39
2.15
Male
Female
Stimulus Gender

Appendix A

Examples of Cluster C Personality Disorder Criteria

Avoidant Personality Disorder

Avoids occupational activities that involve significant interpersonal contact, because of fears of criticism, disapproval, or rejection

Is unwilling to get involved with people unless certain of being liked

Shows restraint within intimate relationships because of the fear of being shamed or ridiculed

Dependent Personality Disorder

Has difficulty making everyday decisions without an excessive amount of advice and reassurance from others

Needs others to assume responsibility for most major areas of his or her life

Has difficulty expressing disagreement with others because of fear of loss of support or approval **Note:** Do not include realistic fears of retribution

Obsessive-Compulsive Personality Disorder

Is preoccupied with details, rules, lists, order, organization, or schedules to the extent that the major point of the activity is lost

Shows perfectionism that interferes with task completion (e.g., is unable to complete a project because his or her own overly strict standards are not met)

Is excessively devoted to work and productivity to the exclusion of leisure activities and friendships (not accounted for by obvious economic necessity)

Appendix B

Informed Consent

The following is a consent form for participation in a research project from the clinical psychology graduate department at Eastern Illinois University. This study is being conducted by Christopher Lootens, a graduate student in Clinical Psychology, under the advisement of Dr. Anu Sharma. The study will examine to what degree certain personality characteristics are associated with individuals based on their description.

I,_____ (PRINT NAME), agree to participate in this research study. I understand that I will be asked to view a number of slides depicting different characteristics that people sometimes have. I will also be shown a description of an individual and be asked to rate how much I believe this person is likely to have the characteristics depicted on the slides. After I complete these ratings, I will also be asked to fill out a short questionnaire. This study will take approximately 30 minutes to complete.

I understand that my participation in this study and all information I provide will remain anonymous and confidential, and that the ratings will only be used for research purposes. I also understand that any information that might serve to identify me will be deleted from all files upon completion of this research project. I have been informed that my participation is voluntary and that I may withdraw my participation from this research project at any time without penalty.

_____ _____

Signature Date

Appendix C

Feedback Statement

Thank you for your participation in this research project!

The purpose of this study is to examine whether the criteria used to diagnose Cluster C personality disorders (a category for diagnosis in the American Psychiatric Association Diagnostic and Statistical Manual) are ethnically and gender biased. Personality disorders are defined as "an enduring pattern of inner experience and behavior that deviates markedly from the expectations of the individual's culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment." (APA, 2000, p. 685). Approximately 20-40% of psychiatric inpatients are diagnosed with a personality disorder (Marshall & Serin, 1997). Previous research has provided support for the existence of gender biases in the diagnosis of personality disorders, so it is likely that there would be ethnic biases as well. This study will provide information on diagnosing personality disorders as well as on stereotyping and ethnic biases.

If you have any further questions regarding your participation in this study, please contact Chris Lootens at 309-781-8428 or Dr. Anu Sharma at 581-6089. Thank you again for your participation.

****Please do not discuss this study with other students as they may also be participants in this study. Thank you.****

References

American Psychiatric Association (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, D.C: Author.

Marshall, W.L., & Serin, R. (1997). Personality disorders. In S.M. Turner & M. Hersen (Eds.), *Adult psychopathology and diagnosis* (3rd ed.) (pp.508-546). New York, NY: John Wiley & Sons, Inc.